



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,811	05/30/2001	Takeshi Yukitake	JEL-29186C-RE-DIV4	8306

7590 08/22/2003

James E Ledbetter Esq
Stevens Davis Miller & Mosher LLP
1615 L Street NW Suite 850
P O Box 34387
Washington, DC 20043-4387

EXAMINER

LEE, RICHARD J

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 08/22/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

10

Office Action Summary

Application No.
09/866,811

Applicant(s)
Yukitake et al

Examiner
Richard Lee

Art Unit
2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-11 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 07/970,046.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 2613

1. It is noted that the continuation data as shown at line 1 of the first page of the single column format Specification should be provided in the double column format Specification. The particular identification of "(now U.S. Patent no.)" for application number 09/559,627 as shown in the continuation data should be deleted since the application referenced is still pending and has not yet been allowed at the present time. Further, there seems to be some discrepancy relating to the continuation data. The IDS filed May 30, 2001, for example, indicates that the present application is a divisional of reissue application no. 09/559,627. But the first page of the single column format Specification identifies the present application as a reissue continuation of reissue application no. 09/559,627. Clarification is required and the continuation data should be updated accordingly.
2. It is noted that the cited Gillard patent no. 4,864,294 as shown in the IDS filed April 13, 2001 is incorrect. The reference should be patent no. 4,864,394 instead. The Examiner has made the correction in the IDS filed April 13, 2001 (see attached PTO-1449). No further action is required by the applicants.
3. The applicants are informed that the Statement Under 37 CFR 3.73(b) and the Assent of Assignee as filed are defective since both communications have failed to provide the required dates when signed.
4. It is noted that the Offer to Surrender as filed does not provide a date when the communication was signed. Though there is no longer a requirement for the applicant to provide a statement as to the offer to surrender the original patent, the original patent is still required to be

Art Unit: 2613

surrendered. And since the Letters Patent No. 5,745,182 has already been surrendered in parent application 09/559,627, no further action is required by the applicants.

5. The reissue oath/declaration filed with this application is defective (see 37 CFR 1.175 and MPEP § 1414) because of the following:

The reissue declaration as filed is defective since it is a duplicate of that filed in parent case 09/559,627. The error(s) set forth and corrected in the present reissue application can not be the same error(s) being corrected in the parent reissue application 09/559,627. The present reissue declaration must provide/state new error(s) for correction.

6. Claims 4-11 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

7. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claim 8, line 13, "MV2" should be changed to "MV1" in order to provide proper antecedent basis for the same as specified at lines 5-6;

(2) claim 10, line 2, "R1" should be changed to "r1" in order to provide proper antecedent basis for the same as specified at claim 4, line 5;

Art Unit: 2613

(3) claim 10, line 2, "R2" should be changed to "r2" in order to provide proper antecedent basis for the same as specified at claim 4, line 9;

(4) claim 11, line 2, "R1" should be changed to "r1" in order to provide proper antecedent basis for the same as specified at claim 5, lines 5-6; and

(5) claim 10, line 2, "R2" should be changed to "r2" in order to provide proper antecedent basis for the same as specified at claim 5, lines 9-10.

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2613

9. Claims 4, 6, and 7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 and 12 of copending Application No. 09/833,769. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the followings. Application claim 4 is in general broader than claim 9 of '769. The minor differences between application claim 4 and claim 9 of '769 are as follows. Claim 9 of '769 claims "one reference image R1" and "another reference image R2" while application claim 4 claims "a reference image part r1 of one reference image R1" and "a reference image part r2 of another reference image R2". However, after a careful reading of the Specification, it is determined that both the "reference image parts r1 and r2" and "one and another reference images R1 and R2" correspond to the block unit (see Abstract for example). In addition, the preamble of claim 9 of '769 claims a method of **obtaining** motion compensation for an input image and the preamble of application claim 4 claims a method of **determining** motion compensation for an input image. The difference between the two limitations are the terms "obtaining" and "determining", but the two terms are substantially the same and are not patentably distinct from each other since it is clear that after something is determined, you would have obtained it and vice versa. In addition, claim 9 of '769 calls for "**obtaining** a first motion vector MV1" while application claim 4 calls for "**providing** a first motion vector MV1". Again, the two terms "obtaining" and "providing" are substantially the same and are not patentably distinct from each other. Further, claim 9 of '769 calls for "calculating **first pixel values** of said one reference image R1 from pixels which are **neighbors** of positions corresponding to said first motion vector

Art Unit: 2613

MV1 and calculating **second pixel values** of said another reference image R2 from pixels which are **neighbors** of positions corresponding to said second motion vector MV2”, while application claim 4 calls for “calculating **pixel values** of said reference image parts r1 and r2 from **peripheral pixels** at positions corresponding to said first and second motion vectors MV1 and MV2”. The differences between the two limitations are the terms “first and second pixel values” versus “pixel values”; and “pixel which are neighbors of positions” versus “peripheral pixels”. However, the terms “first” and “second” pixel values as claimed only identifies the pixel values but does not add any patentable weight over the simple “pixel values”. After a careful reading of the Specification, it is determined that both “peripheral pixels” and “pixels which are neighbors of positions” correspond to the same pixel positions (see Figures 4A and 4B), and as such are not patentably distinct from each other. Application claim 6 is the corresponding apparatus to application method claim 4, and is rejected for the same reasons as above. Application claim 7 is an apparatus claim corresponding to the method of claim 12 of ‘769.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 5 and 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 09/833,680. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the followings. Application claim 5 in general is broader than claim 4 of ‘680. The minor differences between application claim 5 and claim 4 of ‘680 are as follows.

Art Unit: 2613

Claim 4 of '680 claims "one reference image R1" and "another reference image R2" while application claim 5 claims "a reference image part r1 of one reference image R1" and "a reference image part r2 of another reference image R2". However, after a careful reading of the Specification, it is determined that both the "reference image parts r1 and r2" and "one and another reference images R1 and R2" correspond to the block unit (see Abstract for example). In addition, the preamble of claim 4 of '680 claims a method of **obtaining** a motion-compensated image and the preamble of application claim 5 claims a method for **determining** motion-compensated image. The difference between the two limitations are the terms "obtaining" and "determining", but the two terms are substantially the same and are not patentably distinct from each other since it is clear that after something is determined, you would have obtained it and vice versa. In addition, claim 4 of '680 calls for "**obtaining** a first motion vector MV1" while application claim 5 calls for "**providing** a first motion vector MV1". Again, the two terms "obtaining" and "providing" are substantially the same and are not patentably distinct from each other. Further, claim 4 of '680 calls for "calculating **first pixel values** of said one reference image R1 from pixels which are **neighbors** of positions corresponding to said first motion vector MV1 and calculating **second pixel values** of said another reference image R2 from pixels which are **neighbors** of positions corresponding to said second motion vector MV2", while application claim 5 calls for "calculating **pixel values** of said reference image parts r1 and r2 from **peripheral pixels** at positions corresponding to said first and second motion vectors MV1 and MV2". The differences between the two limitations are the terms "first and second pixel values" versus "pixel

Art Unit: 2613

values”; and “pixel which are neighbors of positions” versus “peripheral pixels”. However, the terms “first” and “second” pixel values as claimed only identifies the pixel values but does not add any patentable weight over the simple “pixel values”. After a careful reading of the Specification, it is determined that both “peripheral pixels” and “pixels which are neighbors of positions” correspond to the same pixel positions (see Figures 4A and 4B), and as such are not patentably distinct from each other. Application claim 8 is the corresponding apparatus to application method claim 5, and is rejected for the same reasons as above.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 4-11 are rejected under 35 U.S.C. 102(a) as being anticipated by Yukitake of record “Field-time Adjusted MC for frame-base coding (2)”.

Yukitake discloses a field time adjusted motion compensation for frame base coding as shown in Figures 1 and B.1, and the same method and apparatus as claimed in claims 4-11 of determining motion compensation for an input image, the method and apparatus comprising the same providing a first motion vector MV (i.e., MV_{frm} for frames f₀ to f₂ as shown in Figure B.1) between the input image/motion compensated image and a reference image part r₁ of one

Art Unit: 2613

reference image R1 having a plurality of reference image parts; calculating a second motion vector MV2 (i.e., MV_{frm} for frames f1 to f3 as shown in Figure B.1) between the input image/motion compensated image and a reference image part r2 of another reference image R2 having a plurality of reference image parts from the first motion vector MV1; calculating pixel values of the reference image parts r1 and r2 from peripheral pixels at positions corresponding to the first and second motion vectors MV1 and MV2, wherein the reference images R1 and R2 are such that a motion vector MV3 (i.e., $-MV_{fld}$ of Figure B.1) between the reference image parts r1 and r2 has a mathematical relationship with the first and second motion vectors MV1 and MV2 in which the motion vector MV3 is parallel to and different in value from each of the first and second motion vectors MV1 and MV2, wherein the reference images R1 and R2 and parts R1 and R2 are previous to the input image/motion-compensated image in a time sequence (see Figure B.1); and calculating the motion compensation for the input image from the pixel values of the reference image parts r1 and r2 to determine the motion compensation (see pages 1 and 8).

13. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Art Unit: 2613

or faxed to:


(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

8/20/03

